

**Two new species of Pectinoidea (Bivalvia, Propeamussiidae and Pectinidae)  
from the Philippines**

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*Parvamussium aldeynzeri* spec. nov. and *Veprichlamys deynzerorum* spec. nov. are described from the Philippines (Bohol).

Key words: Bivalvia, Propeamussiidae, Pectinidae, *Parvamussium*, *Veprichlamys*, taxonomy, Philippines.

INTRODUCTION

Recently Mr Al Deynzer (Sanibel Island, Florida) sent me some unidentified pectinoid specimens from the Philippines for examination. Among these there are two new species.

During the last decades several new pectinid species were discovered in deep waters in the Philippines (see Dijkstra, 1988a, 1988b, 1994; Wagner, 1988) and others are listed by Barnett (1984a, 1984b) and Wagner (1989). All these species are taken by tangle nets, used by local fishermen. These nets are made of very fine mesh nylon with weights and rubber floats, roughly one meter wide and 150 meters long. The nets are placed on the sea floor at depths of approximately 100 to 600 m to remain there overnight. One of the long sides has weights to keep it on the sea floor and the other is free to sway with the current. These nets are left for a time to allow shells to get entangled in them (see also Hill, 1996; Barnett, 1984). For the first time a new propeamussiid species has now been caught in these nets.

Another fishing method is collecting by scuba-diving at night in shallow waters, to a depth of approximately 50 m. Usually pectinids are byssally attached to the underside of rocks or coral boulders, and coral dwellers are often found living amongst the branches of coral or hidden in crevices. During the night, especially at new moon, these animals leave their cryptic habitats for less protected areas of coral rubble and soft sediments [Dijkstra, unpublished records]. Using this method, the present new pectinid species was found, together with the rare *Laevichlamys mollita* (Reeve, 1853) and the free-living pectinid *Dentamussium obliteratum* (Linnaeus, 1758).

Abbreviations: C, shell convexity; H, height; W, width; pr, paired (articulated) valves; ZMA, Zoological Museum, University of Amsterdam.

SYSTEMATIC PART

Family Propeamussiidae Abbott, 1954

*Parvamussium* Sacco, 1897

*Parvamussium* Sacco, 1897a: 102 (proposed as a subgenus of *Amussium* Herrmannsen, 1846 [unjustified emendation of *Amusium* Röding, 1798]); no diagnosis given, but type species designated. Sacco, 1897b: 48 (diagnosis). Type species (by original designation): *Pecten (Pleuronectes) duodecimlamellatus* Bronn, 1832; Upper Miocene, northern Italy.

For synonymy and diagnosis see Dijkstra (1995: 25).

*Parvamussium aldeynzeri* spec. nov. (figs 7-17)

Material. – Philippines, Bohol, Panglao Island, Loac, 9°35'N, 123°49'E, offshore, tangle nets, bathyal depth, alive (ZMA Moll. 4.03.020/holotype [pr], 4.03.021/2 paratypes [pr]).

Description. – Shell small, fragile and flattened, up to c. 10 mm high, subcircular, somewhat higher than wide, inequivalve, inequilateral. Left valve slightly more convex than right one. Anterior auricles larger in size and shape than posterior ones. Umbonal angle c. 90°. Colour creamy white, semi-transparent.

Left valve with 13-14 hollow radial lirae, starting at 3 mm shell height and increasing with secondary intercalated lirae to the ventral margin. Umbonal area glossy (2 mm), surface nearly smooth; weak, delicate, commarginal sculpture laterally; ventral margin somewhat undulated. Anterior auricle dorsally somewhat commarginally undulated (flat in paratypes), with a few very weak radial riblets and closely spaced commarginal lamellae laterally, posterior auricle smooth and flat.

Right valve with very weak, closely spaced, commarginal lamellae, ventrally more prominent. Anterior auricle with 5-6 delicate radial riblets and commarginal lamellae laterally; posterior auricle smooth, dorsal margin squamose. Marginal apron (2 mm) fragile and often damaged or broken off. Hinge line straight. Byssal notch shallow.

Internal ribs eleven, starting at 2 mm shell height.

Dimensions of holotype: H 10.2 mm, W 10.1 mm, C 2.1 mm.

Distribution. – Only known from Bohol, Philippines.

Comparison. – *P. deynzeri* closely resembles *Parvamussium undosum* Dijkstra, 1991, known from Indonesia, but differs by its larger size (10 mm, versus 8 mm in *P. undosum*), a smooth surface (*P. undosum* has a strongly developed commarginal sculpture on the disc and the auricles), a larger glossy umbonal surface (2 mm, versus 1 mm in *P. undosum*), a squamous dorsal margin of the right valve (very weakly developed in *P. undosum*), and a different colour of semi-transparent creamy white (white and opaque in *P. undosum*).

Etymology. – This new species is named after Mr. Al Deynzer of Sanibel Island (Florida, USA).

Family Pectinidae Wilkes, 1810

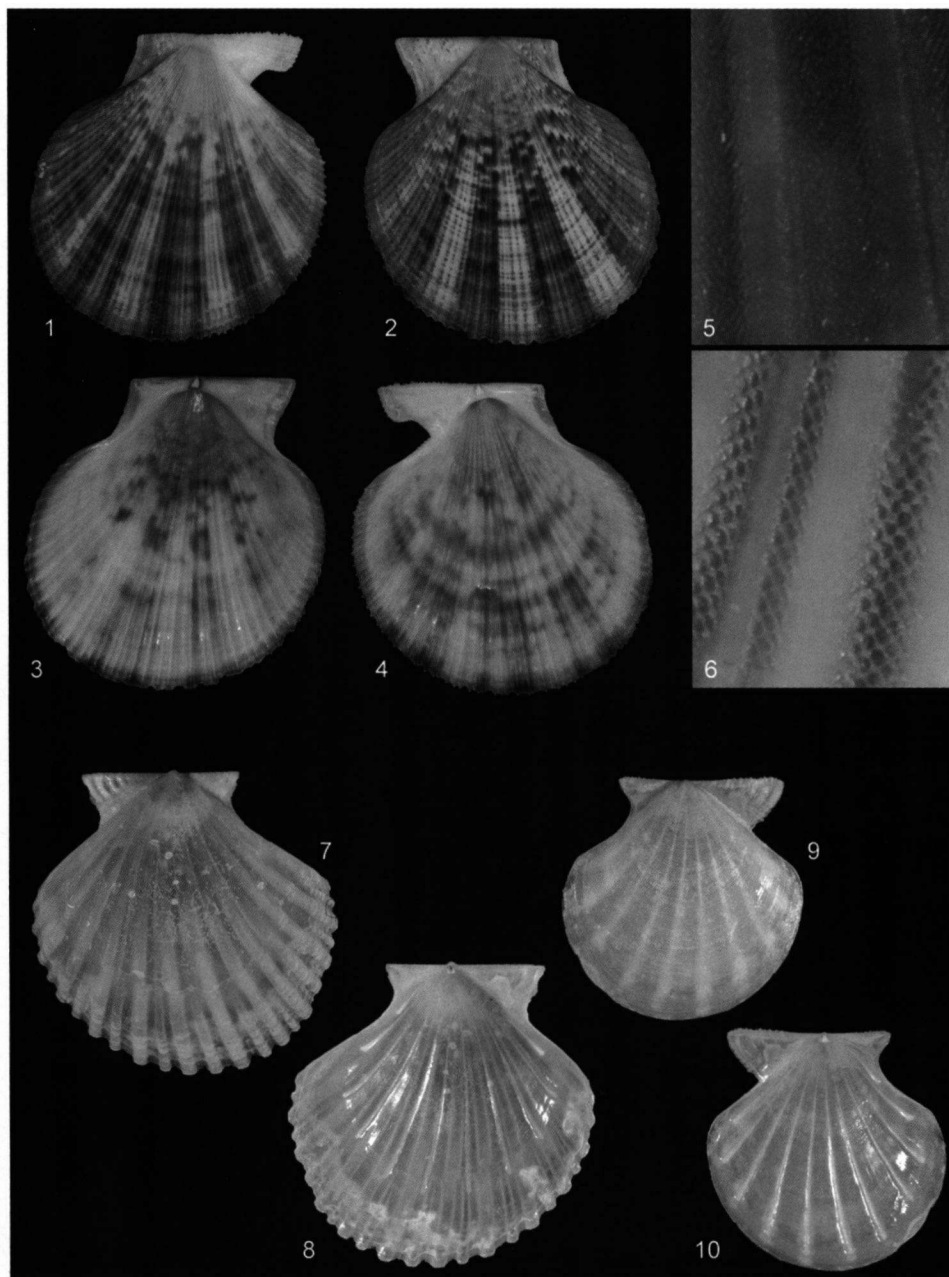
Subfamily Chlamydiae von Teppner, 1922

Tribe Chlamydini von Teppner, 1922

*Veprichlamys* Iredale, 1929

*Veprichlamys* Iredale, 1929: 164, 188 [proposed as a subgenus of *Mimachlamys*]. Type species (by original designation): *Chlamys perillustris* Iredale, 1925; Recent, southeastern Australia.

For a diagnosis see Dijkstra & Kilburn (2001: 268).



Figs 1-6. *Veprichlamys deynzerorum* spec. nov., Philippines, Bohol, Calituban Islets, depth 30-40 m, v.2003. 1-4, holotype, ZMA Moll. 4.03.022 (43 x 41.1 mm); 5-6, paratype, ZMA Moll. 4.03.023. 1, rv, exterior; 2, lv, exterior; 3, lv, interior; 4, rv, interior; 5, rv, detail intercostal antimarginal microsculpture on antero-central part of disc; 6, lv, detail intercostal reticulate microsculpture above central part of disc.

Figs 7-10. *Parvamussium aldeynzeri* spec. nov., Philippines, Bohol, Panglao Island, 9°35'N, 123°49'E, bathyal depth, holotype, ZMA Moll. 4.03.020 (10.2 x 10.1 mm).

*Veprichlamys deynzerorum* spec. nov. (figs 1-6)

Material. – Philippines, Bohol, N-side, Calituban Islets, 30-40 m, alive, amongst reef rubble, taken by scuba-diving at night, May 2003 (ZMA Moll. 4.03.022/holotype [pr], 4.03.023/paratype [pr]).

Description. – Shell thin and flattened, up to 43 mm high, nearly circular and slightly posteriorly oblique, somewhat higher than wide. Valves equiconvex, nearly equivalve. Auricles strongly unequal in shape and size. Umbonal angle c. 90°. Colour cream-brownish, with small dark and pale brown radials and maculations umbonally, which are also visible from the inside.

Both valves sculptured with numerous (c. 30 on central part, c. 50 ventrally), irregularly spaced, squamous radial costae, starting at 1 mm shell height and extending towards ventral margin, while increasing in prominence and number. Microsculpture of interspaces slightly variable, with weak, irregular radial striae on central part of disc, more anti-marginal laterally; preradial stage nearly smooth. Anterior auricle of left valve larger than posterior one, sculptured with 8-10 weakly developed squamous radial ribs; posterior auricle with 5 weak squamous radial lirae. Interspaces of early growth stage microscopically reticulated in the paratype and nearly smooth in the holotype. Auricles of right valve sculptured with 5 radial ribs each. Hinge line straight. Byssal fasciole broad, byssal notch rather deep. Functional ctenolium beside ledge of suture, with 6 teeth. Resilifer triangular oblong. Inner surface of both valves somewhat plicate near periphery.

Dimensions of holotype: H 43.0 mm, W 41.1 mm, C 11.5 mm.

Distribution. – Only known from Bohol, Philippines.

Comparison. – *Veprichlamys deynzerorum* closely resembles *V. versipellis* Dijkstra & Kastoro, 1997, from Indonesia, but has a more circular shape (*V. versipellis* is more obliquely ovate posteriorly), and a more irregularly striated microsculpture (*V. versipellis* has a shagreen microsculpture throughout), and is more brightly coloured.

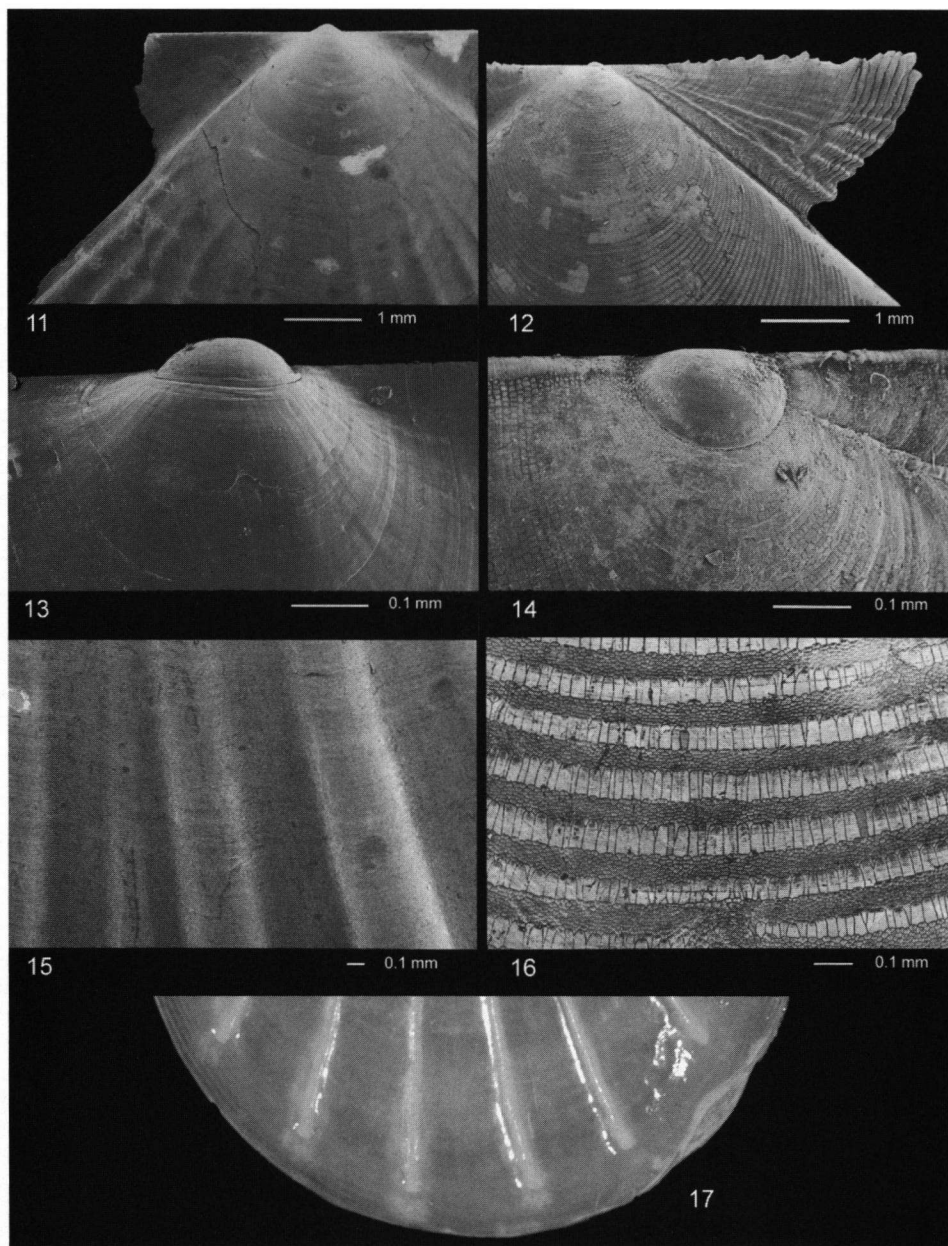
It differs from *V. africana* Dijkstra & Kilburn, 2001, from southern Mozambique and eastern Transkei (South Africa), by having more secondary, intercalated, radial riblets (nearly lacking in *V. africana*), stronger developed scales on the ribs (*V. africa* has weaker and closer placed scales), a weak, shagreen microsculpture in its early growth stage (lacking in *V. africana*) and a brighter colouring (*V. africana* is creamy only).

It differs from *Veprichlamys jousseamei* (Bavay, 1904), known from the tropical western Pacific, by its larger size (height up to 43 mm versus 25 mm in *V. jousseamei*), by the shagreen microsculpture (*V. jousseamei* has a radial microsculpture), and by the presence of more numerous, secondary, intercalated radial riblets.

It differs from *Veprichlamys incantata* (Hertlein, 1972) from the Galapagos Islands, by its smaller size (*V. incantata* is c. 55 mm high), its more circular shape (*V. incantata* is more obliquely oblong), more primary and secondary radial ribs (c. 50), a shagreen microsculpture (*V. incantata* has c. 25 ribs and radial microsculpture), and a brighter colouring (*V. incantata* is whitish, creamy or pinkish).

It differs from *Veprichlamys perillustris* (Iredale, 1925) from southeastern Australia, by its larger size (*V. perillustris* is only c. 35 mm high), a more circular shape (*V. perillustris* is strongly obliquely oblong), larger posterior auricles, more radial ribs (c. 50), a shagreen microsculpture (*V. perillustris* has c. 20 ribs and radial microsculpture), and a brighter colouring (*V. perillustris* is whitish or creamy).

It differs from *Veprichlamys kiwaensis* (Powell, 1933) from New Zealand, by its larger size (*V. kiwaensis* is only c. 35 mm high), a slightly more circular shape (*V. kiwaensis* is slightly obliquely ovate), larger posterior auricles, more (c. 30) primary radial ribs (*V. kiwaensis*



Figs 11-17. *Parvamussium aldeynzeri* spec. nov., Philippines, Bohol, Panglao Island, 9°35'N, 123°49'E, bathyal depth. 7-10, 17, holotype, ZMA Moll. 4.03.020 (10.2 x 10.1 mm); 11-16, paratype, ZMA Moll. 4.03.21. 7, lv, exterior; 8, lv, interior; 9, rv, exterior; 10, rv, interior; 11, lv, umbonal part; 12, rv, umbonal part; 13, lv, prodissoconch to preradial stage; 14, rv, prodissoconch to early commarginal growth stage; 15, lv, detail radial sculpture on central part of disc; 16, rv, detail commarginal sculpture on central part of disc; 17, holotype, rv, ventral detail of internal ribs.

has c. 25 primary radial ribs and less secondary ones), and its microsculpture. *V. deynzerorum* has a radial and a shagreen microsculpture and *V. kiwaensis* a commarginal one in the preradial stage (lacking in *V. deynzerorum*), and a more prominent radial microsculpture throughout. *V. deynzerorum* is more brightly coloured than *V. kiwaensis*, which is whitish or creamy only.

Etymology. – This new species is named after Al and Bev Deynzer and their son Neal of Sanibel Island (Florida, USA).

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